



**International Medical Corps  
Burundi  
OFDA HDA-G-00-03-00030-00 Final Report**

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| <b>Country/Regions:</b>        | Burundi/Rutana, Kirundo, Muyinga, Muramvya  |
| <b>Disaster/Hazard:</b>        | Complex Emergency   |
| <b>Time covered by Report:</b> | January 01, 2003 – March 10, 2004   |
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## **I. Executive Summary**

The reporting period of 435 days (total duration of this grant) can be divided into three main periods:

- January 1, 2003 - April 31, 2003: At the end of April, Muramvya activities closed;
- May 1, 2003 - December 31, 2003: In May, activities in Muramvya were restarted based on approval of OFDA; and
- January 1, 2004 - March 10, 2004: No-cost extension period. Nutrition statistics within this report thus reflect the period between January 1, 2003 and March 31, 2004.

During this reporting period, IMC received 3,958 severely malnourished persons in the Therapeutic Feeding Centers (TFCs), of whom 83.7 percent recovered. IMC supervised the operations of 41 Supplementary Feeding Services (SFSs) (14 in Muyinga, 12→14 in Rutana and 13 in Kirundo), at which 27,751 moderately malnourished persons were admitted, and 71 percent of them recovered. Please see Annex 1 for details. Due to the high numbers of beneficiaries seen in the TFCs and SFSs, and the troublesome food security situation, the further integration of SFCs into the health system was hampered, and it has not been feasible to integrate TFCs into the health system as well. In Muyinga/Kirundo the HC nurses did visit the SFSs daily. In addition, joint IMC/Chef de Secteur visits were organized as of July 2003. As scheduled, IMC conducted training on national guidelines for diagnosis and management of malnutrition for HC/hospital nurses in Kirundo and Muyinga, as well as a training session for Muyinga and Kirundo BPS health personnel on the methodology for nutritional surveys. IMC also trained the

newly appointed provincial nutrition program supervisor and the nurse in charge of integration of TFC in Rutana province.

At the end of this reporting period IMC had established demonstration gardens next to each feeding center/service, for a total of 44 demonstration gardens. At the end of this reporting period IMC had also established 18 goat associations among at-risk populations in Muyinga, Kirundo and Rutana.

Through the IMC-assisted health facilities in Muyinga, Kirundo and Rutana, 549,771 curative consultations were conducted in 2003 and 141,278 during the first quarter of 2004. Please see Annexes 2 and 3 for more details. In Muramvya province, IMC provided emergency medical services to the population through existing health centers and made 31,054 consultations through mobile clinics in IDP sites in Bukeye commune. IMC diagnosed and treated 24,438 malaria cases during the months of January-April 2003 alone. IMC carried out community based health services in Muyinga, Kirundo, Rutana and Muramvya. During this grant, IMC trained 28 new TBAs and 60 new CBHWs. Previously trained IMC TBAs and CBHWs were trained in refresher courses. During this grant period IMC established eleven Health Center Management Committees, and trainings for the committee members were conducted. Please see Annex 4 for details on training activities.

There were some constraints to implementation of the project. IMC assumed in its original proposal that adequate quantity and quality of supplies such as food and vaccines would be available through UNICEF and WFP. In December 2002, the WFP stocks were not large enough to deal with the food security deterioration and the increased feeding services admission rates. In Rutana, there were access problems for the area bordering with Ruyigi Province in the first half of 2003. In Muramvya, the activity plan had to be adapted continuously, and mobile clinics had to be cancelled from time to time in 2003.

Although the IMC program was successful in its accomplishments, further interventions are needed in the areas of malnutrition management and prevention. The criteria established by IMC with which implementation of specific tasks for transition to local health authorities can begin in a particular province, included:

- Sustained reduction in TFC admissions to 30 per month over a period of 3 consecutive months;
- Improved food security situation as determined by the provincial agricultural authority (DPAE) and international agencies;
- A relative stable security situation as determined in security coordination meetings with the Office of Coordination of Humanitarian Affairs (OCHA) and other international partners; and
- Improved health status of the population as determined by provincial level indicators for morbidity and mortality, disease caseload, immunization coverage and access to health services.

## **II. Program Overview**

Civil society in Burundi has been torn by a series of severe ethnic conflicts between majority Hutu and minority Tutsi since the first major clash in 1965, resulting in the loss of many innocent lives. In the course of 2003, hope for peace returned, and during the second half of 2003 security improved in the majority of rural areas. Nevertheless, unjustified killings continue today and sustainable peace has not yet arrived. During the project period, the civil conflict continued to destroy homes, rob people of their livelihoods and ravage communities. Drought, the mosaic virus attacking manioc plants, high prevalence of malaria and displacement are the major problems that affect Burundi's population, resulting in a large number of people unable to produce their own food or earn income.

The nutritional situation remained precarious during 2003 and the first quarter of 2004. The mosaic virus present in the north of the country effected the production of manioc, and has started to attack the sweet

potato plants. Poor rainfall in the first quarter of 2003 meant that 2003A harvest reserves were not enough to cover the needs till the next harvest in June 2003. In June, the dry season was apparent and the 2003B harvest in June was average (1% less than in 2002), thus the nutritional status remained poor. Household food stocks were empty by the end of August, and the meager 2003C harvest came only in November. The admissions to TFCs and SFSs increased during the third quarter of 2003. The 2004A harvest in February was average, except in Kirundo and Muyinga where there was not enough rainfall. Nutrition status remains fragile and alarming in Kirundo and Muyinga. The traditional agricultural system is fragile and unable to withstand adverse social and climatic conditions. Crop yields have decreased due to drought in the Northern and Eastern sections of the country and the unstable security situation during the first half of 2003 in the East and Central parts of the country.

Even though the malnutrition crisis has subsided since April 2001, results of nutritional surveys conducted in 2003 are worrisome (surveys in Kirundo and Muyinga conducted in July, in Rutana November). Both global and severe acute malnutrition rates are higher than in 2002. Severe malnutrition rates in Muyinga and Kirundo are even worse than in 2001.

*Table II.1: Global Acute Malnutrition rate by Province*

| Year | Kirundo | Muyinga | Rutana |
|------|---------|---------|--------|
| 1997 |         | 11.4%   | 13.1%  |
| 1998 |         | 10.9%   | 13.4%  |
| 1999 | 13.0%   | 17.0%   | 12.4%  |
| 2000 | 6.8%    | *       | *      |
| 2001 | 7.2%    | 9.1%    | 19.2%  |
| 2002 | 3.4%    | 4.2%    | 9.8%   |
| 2003 | 5.2%    | 8.6%    | 8.9%   |

*Table II.2: Severe Acute Malnutrition rate by Province*

| Year | Kirundo | Muyinga | Rutana |
|------|---------|---------|--------|
| 1997 |         | 7.4%    | 6.8%   |
| 1998 |         | 6.0%    | 4.8%   |
| 1999 | 6.1%    | 3.3%    | 3.6%   |
| 2000 | 1.2%    | *       | *      |
| 2001 | 1.1%    | 1.2%    | 6.3%   |
| 2002 | 0.8%    | 0.2*    | 2.2%   |
| 2003 | 2.0%    | 1.4%    | 3.2%   |

*\*In the year 2000 no nutrition survey was conducted in Muyinga and Rutana*

In 2003 a total of 21,911 people were registered in supplementary feeding programs and 3,289 in therapeutic feeding programs, compared to respectively 17,503 and 2,928 in the year 2002. This shows an increase of 25% in the TFCs and 12% in the SFSs. For the first quarter of 2004, there were 669 registered in TFCs and 5,841 in SFSs. At the same time the Burundian health care system is still not able to cope with the malnutrition due to limited financing, lack of logistical support and organizational capability.

The most visible and long-lasting consequence of the civil war has been the displacement of Burundi's population. In September of 2001, approximately 281,000 people lived in 230 displaced settlements, semi-permanent villages or IDP camps (this does not include Bujumbura rural).<sup>1</sup> In March 2004, UNHCR/OCHA estimated that 140,000 people still live in 182 displaced settlements, semi permanent villages or IDP camps. Moreover, there are still more than 230,000 people in refugee camps in Tanzania and about 20,000 in Congo. In March 2002, facilitated repatriation of Burundian refugees from Tanzanian camps started.

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<sup>1</sup> UNHCR

**Table II .3 Official Repatriation figures from March 2002 –March 2004 (UNHCR):**

| Geographical area     | Cumulative 2002 | Facilitated 2003 | Spontaneous 2003 | Cumulative 2003 | Facilitated Q1, 2004 | Spontaneous Q1, 2004 | Cumulative Q1, 2004 |
|-----------------------|-----------------|------------------|------------------|-----------------|----------------------|----------------------|---------------------|
| Muyinga               | 20,152          | 11,973           | 15               | 11,988          | 1,533                | 0                    | 1,533               |
| Kirundo               | 6,633           | 4,109            | 38               | 4,147           | 871                  | 0                    | 871                 |
| Rutana                | 2,065           | 673              | 3,634            | 4,312           | 219                  | 54                   | 273                 |
| Muramvya              | 130             | 702              | 43               | 948             | 270                  | 10                   | 280                 |
| Total for 4 provinces | 28,980          | 17,457           | 3,730            | 21,395          | 2,893                | 64                   | 2,957               |
| Total For Burundi     | 52,853          | 37,288           | 45,078           | 82,366          | 26,810               | 1,735                | 28,545              |

\*Number of “spontaneous returnees” from the Tanzanian camps continues to be high, mainly due to food security problems in the Tanzanian camps, as well as movement restrictions for the camp population so that they cannot look for supplementary food.

\*\*During week 39, UNHCR and the Burundian Government opened two new returnees entry points. Three entry points already existed, one in Muyinga (Kobero) functioning since March 2002, one in Ruyigi, and one in Makamba. During week 39, one entry point was opened in Rutana (not recognised for facilitated returnees), and one in Cankuzu. The number of facilitated returnees mentioned above for 2004 consists of Kobero entrees (5,378), Bujumbura Mairie entrees (162), Ruyigi entrees (20,738) and Gahumbo entrees in Cankuzo province (532).

Burundi’s health infrastructure has also been significantly compromised. Inadequate food stores have led to an increase in the incidence of malnutrition while violence continues to decimate the number of local health personnel. Morbidity and mortality rates for children and women in Burundi are among the highest in the world, and government vaccination programs and supplementary feeding centers are rendered bankrupt without continued international support. What remains of the Burundian health system relies heavily on the operational support of international medical NGOs who are providing technical, logistical and material assistance to the health centers in most provinces. Without that assistance, even the limited health services that remain in rural areas fail. Attempts to have the Ministry of Health take more responsibility for staffing and drug procurement have made little progress due to the lack of public funds made available for social services. IMC is the sole health care partner of the Ministry of Health in the provinces of Muramvya and Rutana. In the provinces of Kirundo and Muyinga there are more NGOs providing health services, however these services are not inclusive of nutritional support and are limited to certain communes of the Provinces.

Malnutrition, malaria, tuberculosis, AIDS and diarrheal diseases are the most common causes of infant and premature mortality. The high resistance to treatment with Chloroquine (as evidenced among others by the IMC-led research “Chloroquine Resistance Study in Burundi”) caused the Burundian Ministry of Health to announce Chloroquine as a drug of “no use” in simple malaria. As of July 2001, Fansidar was the drug of choice in treatment of simple malaria. In July 2002, it was agreed upon by MOH and the international community that coartem combinations should be the near future first line malaria medicine for Burundi. As of July 2003 the coartem combination has been introduced as the first line drug for malaria treatment.

In 1992 the National Health Service provided 64 percent of the drugs needed in comparison to 18 percent in 1998. As of 2001, the supply of essential drugs to the rural health centers has improved, and together with donations from UNICEF and ICRC as well as other NGOs, the basic needs of the population have been covered in certain regions. Nevertheless at this stage in 2004, it is clear that the population does not have access to basic drugs for economic reasons and physical access problems; certain HCs are not functioning and others are not accessible due to insecurity/distance (Muramvya).

Communicable diseases remain a major health problem among the population due to the decreased accessibility of health services, crowded conditions, inadequate clean water, inadequate sanitation and

poor nutritional status. Community-based health workers provide adequate solutions to community health problems such as hygiene, balanced diet, prevention against malaria and other diseases. The need for their further training and supervision of those already trained is apparent.

### **III. Program Performance**

#### **Goal of the Program**

To reduce morbidity and mortality among vulnerable population groups, including internally displaced persons in Muyinga, Kirundo, Rutana and Muramvya provinces of Burundi

**Objective 1: Improved management of malnutrition cases in public health facilities in Muyinga, Rutana and Kirundo provinces.** *Implementation period for activities under this objective: 14 months and 10 days.*

#### Target Population for Objective 1

Severely and moderately malnourished people who meet the admission criteria to therapeutic and supplementary feeding programs as set forth in the National Burundian Protocol on Management of Malnutrition. The priority groups are:

- Severely and moderately malnourished children under five years of age
- Severely and moderately malnourished women in the third trimester of pregnancy
- Severely and moderately malnourished women lactating an infant < 6 months old

Through the therapeutic and supplementary feeding services in Muyinga, Rutana and Kirundo Provinces, IMC aimed to target 6,065 severely malnourished and 18,000 moderately malnourished children under five years of age as well as severely and moderately malnourished women.

**Objective 2: Increased access to quality preventive and curative health services in Muyinga, Kirundo, Rutana and Muramvya provinces.** *Implementation period for activities under this objective: 14 months and 10 days (for Muramvya 4 months)*

#### Target Population for Objective 2

An estimated 295,572 children under 5 years old, 23,593 women in third trimester of pregnancy and 48,186 lactating women with infants less than 6 months of age.

**Objective 3: Increased access to quality preventive and curative health services in Muramvya province.** *Implementation period for activities under this objective: 9 months and 10 days (June 2003 → March 2004)<sup>2</sup>*

#### Target Population for Objective 3

The estimated total population in Muramvya of 263,288 (estimated population when proposal was submitted).

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<sup>2</sup> \*Note: Objectives 1 & 2 are original grant objectives. Objective 3 was added in June 2003.

**Table III.1. Profile of the target and reached population, per objective<sup>3</sup>**

|                                  | <i>Objective 1</i> |         | <i>Objective 2</i>      |         | <i>Objective 3</i>  |         |
|----------------------------------|--------------------|---------|-------------------------|---------|---------------------|---------|
|                                  | Target             | Reached | Target                  | Reached | Target              | Reached |
| Severely Malnourished            | 6,065              | 3,958   | N.A.                    |         | N.A.                |         |
| Moderately Malnourished          | 18,000             | 27,751  | N.A.                    |         | N.A.                |         |
| Children under 5                 | 85%                | 75%*    | 18%                     |         | 18%                 |         |
| Pregnant/lactating Women         | 9                  | 5%*     | 30%                     |         | 30%                 |         |
| Children over 5 and other adults | 6%                 | 20%*    | 52%                     |         | 52%                 |         |
| Displaced Persons**              | N.A.               |         | 57,727/<br>18,711       |         | 27,799/<br>4,793    |         |
| Fixed Population                 | N.A.               |         |                         |         |                     |         |
| Total***                         | 24,065             | 31,709  | 1,616,031/<br>1,719,791 |         | 263,288/<br>279,323 |         |

\* 75%, 5% and 20 % were the age divisions in TFCs and SFSs in 2003 and first quarter of 2004.

\*\* target population figures (source UNHCR) respectively July 2002 and March 2004.

\*\*\* target population figures (source provincial offices), respectively 2001 and March 2004

### **Objective 1: Improved management of malnutrition cases in public health facilities**

Activity 1a: Provide support and build capacity of public health facilities to provide effective therapeutic and supplementary feeding services for severely and moderately malnourished persons.

#### ***Indicators:***

| <b>Indicators</b>                       | <b>TFCs</b> | <b>SFSs</b> |
|---|-------------|-------------|
| Number of admissions                    | 3,958       | 27,651      |
| Percentage of recovery                  | 83.7%       | 78.4%       |
| Percentage of abandonment               | 6.9%        | 18.6%       |
| Percentage of mortality                 | 7.8%        |             |
| Percentage of non-respondent            |             | 3.0%        |
| Percentage of transfers to hospital/TFC | 1.5%        | 10.0%       |

#### ***Therapeutic Feeding Centers (TFC)***

IMC is supporting three Therapeutic Feeding Centers (TFCs) located in the compounds of Rutana, Muyinga and Kirundo Provincial hospitals. The activities of the TFC Package as per the national protocols include: daily therapeutic feeding utilizing UNICEF and WFP products; clinical therapy of underlying pathologies limited to the essential and basic therapy of communicable and life-threatening conditions, with beneficiaries encouraged to seek medical services within the health centers or hospitals for all other conditions; health education training for the accompanying adults; demonstration garden adjacent to the TFC; discharge to supplementary feeding for continued observation; and monthly reporting and sharing of the reports with partners.

Through the training of local staff in pathologies and national protocols and the functioning of a provincial referral system, IMC has maintained an overall case fatality rate of 7.8 percent and a recovery

<sup>3</sup> Obj. 2 and Obj.3 “reached” are discussed under individual activities in the next section. Curative consultations, antenatal consultations and vaccinations overlap between the three age groups, thus an accurate figure cannot be given here.

rate of 83.7 percent in the TFCs.<sup>4</sup> For Muyinga the recovery rate was 80%, for Kirundo 83%, and for Rutana 89%. Mortality rates were high in Muyinga and Kirundo at 9.9% and 7.4% respectively. Abandon rate was acceptable overall. Only in Muyinga in May and June 2003, as well as in January and February 2004, was the abandon rate over 10%. This links with the high mortality rate seen during those months. The same was seen in Kirundo in April and May 2003. Malaria remained a key concern. During 2003, there were 132 TFC beneficiaries who died of malaria. During the first quarter of 2004, there were 25 beneficiaries who died of malaria.

IMC provided in-depth health education to care providers regarding nutrition, health, hygiene and cultivation techniques to maximize crop yield six times per week, twice per day. IMC continued to provide weekly food demonstrations using locally grown products. IMC provided training to the TFC staff (nurses, phase workers). In Rutana, there were 14 training sessions performed in 2003, and in Muyinga/Kirundo one training session was conducted and continual on-the-job training took place. Please see Annex 4 for training details.

IMC transported food from the Provincial stocks to the TFCs. Water had to be trucked to Muyinga TFC because there were insufficient stores of local water. In September, UNHCR and GTZ agreed to take over the water transportation. Unfortunately in January 2004, UNHCR/GTZ no longer had the capacity to continue with the water supply and IMC took up this activity again. In Rutana there was a shortage of water for the TFC in August. IRC made a 4000-ltr bladder available and IMC transported water to the bladder.

#### Supplementary Feeding Services (SFSs)

As per the national protocols, the activities of the SFS Package include: supplementary feeding in 41 SFCs throughout the three provinces; distribution of wet rations on the spot and distribution of dry rations for home utilizing WFP products; and health education training for accompanying adults. IMC treated 21,810 moderate malnourished persons in 2003 and 5,841 during the first quarter of 2004. The overall recovery rate for 2003 in the 41 SFSs was 71%, with an abandon rate of 17%.

The overall recovery rate for the 41 SFSs for the period January 2003 - March 2004 was 78.4%. For Muyinga the recovery rate increased from 70% during the first quarter of 2003 to 79% for the first quarter of 2004. The recovery rate increase was due to abandon rate decrease (from 27% during first quarter of 2003 to 17% during first quarter of 2004). For Kirundo, the recovery rate fluctuated during 2003; first quarter 70%, second quarter 73%, third and fourth quarter 69%. During the first quarter of 2004 there was an improvement seen, and the recovery rate was 76%. For Rutana the recovery rate was between 83% and 88% in 2003, and for the first quarter of 2004 the recovery rate was 91%.<sup>5</sup> IMC provided continues on-the-job training during the weekly supervision visits for the SFS nurses. IMC transported food from the Provincial stocks to the SFSs.

Activity 1b: Strengthen household agricultural practices to improve the quality and quantity of food production.

#### **Indicators:**

- Number of new gardens planted at SFSs: 22 during this reporting period
- Total number of gardens next to TFCs and SFSs: 44 (next to 100% of the feeding services)
- Number of women identified for the goat project: 42 identified during this reporting period

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<sup>4</sup> UNICEF reference for evaluation of TFC performance: to achieve a fatality rate of under 5 percent, abandon rate of under 10 percent, recovery rate of over 80 percent.

<sup>5</sup> UNICEF reference for evaluation of SFS performance: to achieve an abandon rate of under 15 percent, recovery rate of over 70 percent.

- Number of women successfully completed training: 42 women during this reporting period
- Number of goats contributed for initial project: 90 during previous OFDA grants
- Number of living offspring as of March 2004: 97
- Number of additional women groups established with offspring: 5 during this reporting period
- Number of women benefiting from goat husbandry: 155 women as of March 2004

During the previous grant, IMC established 22 community demonstration gardens at the TFCs, SFSs, health centers and rural communities in Muyinga, Kirundo and Rutana provinces. During this reporting period IMC established an additional 22 demonstration gardens, which makes the total established up to now 44 (15 in Rutana, 29 in Muyinga/Kirundo); one next to each feeding service. During this reporting period IMC provided ongoing technical supervision and support of the gardens in collaboration with the local agronomists. In addition to this, IMC organized nutrition classes, weaning food demonstrations and ongoing garden education at all garden sites. Practical food demonstrations were performed at all TFCs and SFSs with the caretakers bringing a small quantity of products from home to add to the nutritional center garden products. IMC provided the necessary seeds, tools and equipment for all gardens and organic manure was supplied for each garden. Caregivers of children received seed packets upon discharging from TFC or SFC.

In efforts to improve food security and the income generating capacity of the most vulnerable among the beneficiaries of the SFSs, women's associations for caring for goats were put in place. IMC started in 2001 with 3 associations in Muyinga, 3 in Kirundo and 3 in Rutana provinces. All 9 associations received 7 goats as start up "kit". At the start of this grant in January 2003, Muyinga and Kirundo each had 3 associations and offspring to start up new associations. In Rutana there were already 8 goat associations as of January 1, 2003. (Please see table III.2.a below). During 2003 and the first quarter of 2004, two new associations were established in Muyinga province with the offspring of the already existing associations. For Rutana, three new associations were created in 2003, and one of the earlier created associations ended activities as all goats were stolen. (Please see table III.2b, for situation on March 2004)

**Table III.2a Women's associations with goats on January 1, 2003**

| Province     | Address or Colline / Commune | Member     | Female Goats Distributed | Male Goats Distributed | Delivery/ Offspring |
|--------------|------------------------------|------------|--------------------------|------------------------|---------------------|
| Muyinga      | Gashoho Site / Gashoho       | 6          | 6                        | 1                      | 11                  |
|              | Gitaramuka / Buhinyuza       | 6          | 6                        | 1                      | 9                   |
|              | Jarama / Buhinyuza           | 9          | 6 ( 1 died)              | 1                      | 14                  |
| Kirundo      | Kiraro / Vumbi               | 10         | 6                        | 1                      | 3                   |
|              | Gikomero 1                   | 6          | 6                        | 1                      | 4                   |
|              | Gikomero 2                   | 7          | 6                        | 1                      | 2                   |
| Rutana       | Bugunga/Rutana               | 10         | 4                        | 1                      | 5                   |
|              | Nemba/Rutana                 | 10         | 6                        | 1                      | 8                   |
|              | Kayero/Mpinga-Kayove         | 10         | 4                        | 1                      | 12                  |
|              | Mpinga/Mpinga-Kayove         | 10         | 6                        | 1                      | 7                   |
|              | Rubara/Musongati             | 10         | 4                        | 1                      | 3                   |
|              | Gitaramuka/Musongati         | 10         | 4                        | 1                      | 4                   |
|              | Shanga/Musongati             | 10         | 6                        | 1                      | 4                   |
|              | Kinzanza/Gitanga             | 10         | 6 (stolen)               | 1 (stolen)             | 0                   |
| <b>Total</b> | <b>15 associations</b>       | <b>124</b> | <b>76</b>                | <b>14</b>              | <b>86</b>           |



**Table III. 2.b Women's associations with goats end of March 2004**

| Province      | Colline / Commune                      | Members                  | Female Goats Present                 | Male Goats Present    | Living Offspring                                      | Offspring taken to assist other assoc. | Total offspring remain in assoc. | Received from other assoc. |
|---------------|--|--------------------------|--------------------------------------|-----------------------|---|--|----------------------------------|----------------------------|
| Muyinga       | Gashoho Site / Gashoho                 | 5 (as 1 died earlier)    | 3 (as 3 died earlier)                | 0 (as 1 died earlier) | 4 (10 died earlier, 2 newborns in Dec)                | 1                                      | 3→5                              | 2 this month               |
|               | Gitaramuka / Buhinyuza                 | 6                        | 0 (2 died earlier, 4 stolen earlier) | 0 (1 stolen earlier)  | 2 (6 died earlier, 3 stolen in Oct)                   | 2                                      | 0→8                              | 8 this month               |
|               | Jarama / Buhinyuza                     | 9                        | 5 (as 1 died earlier)                | 1                     | 12 (2 died earlier)                                   | 4                                      | 8                                |                            |
|               | Musenga zone/Cumba                     | 5 (1died earlier)        | 5 (as one goat was sold earlier)     | 1                     | 3 (1 born in Dec., 2 born Feb)                        | 0                                      | 3→4                              | 1 this month               |
|               | Ngogomo Zone Kiremba, commune Gassorwe | 7 (4 retired this month) | 5 (as one died earlier)              | 1                     | 0   |  | →1                               | 1 this month               |
| Kirundo       | Kiraro / Vumbi                         | 10                       | 4 (as 2 died earlier)                | 0 (1 died this month) | 6 (5 died earlier)                                    | 4 this month                           | 2                                |                            |
|               | Gikomero 1                             | 6                        | 4 (as 2 died earlier)                | 0 (1 died earlier)    | 7 (2 died earlier and 4 newborn in Dec.)              | 4 this month                           | 3                                |                            |
|               | Gikomero 2                             | 7                        | 4 (2 died earlier)                   | 1                     | 8 (2 stolen earlier, 3 died earlier, one born in Feb) | 4 this month                           | 4                                |                            |
| Rutana 2001   | Bugunga/ Rutana                        | 10                       | 4                                    | 1                     | 8 (1 died in Q3, I died Jan 04)                       | 5→Ngoma Feb 04                         | 3                                |                            |
| 2002          | Nemba/ Rutana                          | 10                       | 6                                    | 1                     | 9 (3 died on 2003)                                    | 0                                      | 9                                |                            |
| New in Oct 03 | Ngoma/ Nyamabuye                       | 10                       | 4                                    | 1                     | 0   | 0                                      | 5                                | 5 in February              |
| 2002          | Mpinga/ Mpinga-Kayove                  | 10                       | 6                                    | 1                     | 7 (3 died and 1 stolen in 2003)                       | 0                                      | 7                                |                            |

|                 |                           |                                 |                        |                       |                                   |                       |    |    |
|-----------------|---------------------------|---------------------------------|------------------------|-----------------------|-----------------------------------|-----------------------|----|----|
| New in Jan 2003 | Ngarama/<br>Mpinga-Kayove | 10                              | 4                      | 1                     | 5 (1 born in Oct)                 | 0                     | 5  |    |
| 2001            | Kayero/<br>Mpinga-Kayove  | 10                              | 4                      | 1                     | 11                                | 5-> Ngarama in Feb    | 6  |    |
| 2001            | Rubara/<br>Musongati      | 10                              | 0 (4 stolen in Jan 04) | 0 (1 stolen in Jan04) | 0 (1 died in 03, 4 stolen Jan 04) | 4-> Gitaramuka in Feb | 0  |    |
| 2002            | Gitaramuka/<br>Musongati  | 10                              | 4                      | 1                     | 7                                 | 0                     | 7  |    |
| New in July 03  | Gisasa/Musongati          | 10                              | 6                      | 1                     | 0                                 | 0                     | 0  |    |
| 2002            | Shanga 2/<br>Musongati    | 10                              | 6                      | 1                     | 8                                 | 6->Gisasa Feb 04      | 2  |    |
| Total           | 18 associations           | 155 (2 died earlier; 4 retired) | 74 goats present       | 13 present            | 97                                | 39                    | 79 | 17 |

Activity 1c: Facilitate integration of TFC and SFC activities into health facilities in Kirundo and Muyinga.

#### **Indicators:**

- Number of monitoring visits conducted by BPS: In Muyinga/Kirundo the HC nurses visit the SFS daily. In addition, joint IMC/Chef de Secteur visits were organized as of July 2003.
- Number of training sessions provided to the health center staff/BPS:
  - Muyinga province: In 2003 IMC conducted training for HC/hospital nurses with 14 participants. During the third quarter of 2003, IMC organized training session for BPS health personal on the methodology for nutritional surveys. There were 20 participants.
  - Kirundo province: In 2003 IMC conducted training for HC/hospital nurses with 14 participants. During the third quarter of 2003, IMC organized training for the BPS health staff on the methodology for nutritional surveys. There were 25 participants.
  - Rutana province: In March 2004 IMC trained the newly appointed provincial nutrition program supervisor and the nurse in charge of integration in TFC.
- Number of TFCs integrated: 0
- Number of completely integrated SFSs: 0

Due to high number of beneficiaries in TFCs and SFSs and the troublesome food security situation, it remains very difficult to further integrate SFSs and begin integration of TFCs. The authorities lack financial and human resources as well as logistical means. There are no BPS/HC cars available for the transport of severely malnourished persons, nor for the transportation of food. Severely malnourished persons need certain drug therapy and the referral hospitals do not have the capacity to supply free drugs at this time.

**Rutana province:** In February 2003, IMC initiated contact with the administrative and public health authorities to determine if certain communes could pay permanent nutrition workers in the HCs. In March 2004, the BPS appointed a provincial nutrition program supervisor and a nurse responsible for TFC activities. In the same month IMC conducted training for the two newly appointed staff members.

**Muyinga province:** In March 2003, a promise was made by the medical authorities to pay the nutrition volunteers from April 2003 onwards. In April, IMC organized a training for health center and hospital nurses on prevention and treatment of malnutrition. There were 14 participants. Among the topics discussed were why integration is necessary. The pretest lowest score was 26%, and highest score was 73%. In post-test the lowest score was 78% and highest score 98%. In July 2003, IMC organized a training for BPS health staff on methodology of nutritional surveys. There were 20 participants. In the same month, a nutritional survey was conducted. As of February 2004, all nutritional volunteers working at the SFSs are paid by the health centers.

**Kirundo province:** In February 2003 IMC met with the Medecin provincial (MIP), to discuss the further integration of the SFSs in the health centers. In March a promise was made by the medical authorities to pay the nutrition volunteers from April 2003 onwards. In June 2003, IMC organized a training for health center and hospital nurses on prevention and treatment of malnutrition. There were 14 participants. Among the topics discussed was why integration is necessary. The lowest score on the pre-test for this training was 37%, and the highest score was 80%. The lowest score on the post-test was 62% and the highest was 98%. In July, IMC organized a training for BPS personal on methodology of nutritional survey. There were 25 participants. In the same month a nutritional survey was conducted. As of February 2004, all nutritional volunteers working at SFSs are paid by the health centers.

#### Program Achievements

IMC provided training to HC/hospital nutritional staff, and assisted the provincial health authorities in transporting food supplies and severely malnourished children to TFCs, as well as children recovered from TFC for follow up in SFSs. IMC supervised SFS activities jointly with provincial medical authorities. The nutritional personnel are well trained in caring and monitoring of moderately malnourished children. Their abilities to provide comprehensive care to the beneficiaries were enhanced with training on the provision of community education in nutrition, demonstration gardens, weaning food preparation and hygiene.

The average number of severe and moderate malnourished admissions in all three provinces was 2,114 per month with Kirundo having the highest average of 783 admissions per month. Altogether, IMC supervised operations of 3 TFCs and 41 SFSs. The average abandonment rate in the TFCs was 6.3% and in the SFSs 18.6%. The average recovery rate in the TFCs was 83.7%. In the SFSs average recovery rate is 78.4%. Please see Annex 1 for details. The health center responsables and the provincial medical authorities have shown willingness to work on SFS integration, and nutrition volunteers in all health centers where there is an SFS in Muyinga and Kirundo provinces are on the payroll (27 staff). In Rutana the medical provincial authorities have appointed two responsables for the follow up of the TFC and SFS activities.

### **Objective 2: Increased access to quality preventive and curative health services in public health facilities**

**Activity 2a:** Provide support to health centers and hospitals to implement preventive and curative health services.

#### **Indicators:**

- Number of health center visits per person per year: For 2003, the number of curative new cases per person per year for Muyinga was 0.32, for Kirundo 0.29, for Rutana 0.58, and for Muramvya 0.40.

Looking at the first quarter of 2004 and extrapolating the number of curative new case visits per person per year, the figure for Muyinga is 0.37, for Kirundo is 0.29, and for Rutana is 0.49.

- Number of deliveries attended by a skilled health worker: For the period January 1 to December 31, 2003 the number of deliveries in health facilities in the provinces of Muyinga, Kirundo and Rutana were respectively 2,403 and 3,305 and 1,113.
- Number of antenatal clinics attended: For the period January 1- December 31, 2003 the number of prenatal consultations for the provinces of Muyinga, Kirundo and Rutana were respectively; 34,754 and 28,528 and 14,431.
- Vaccine Coverage: Please see Annexes 2 and 3a
- Number of participants in each seminar/refresher training: Please see Annex 4

### Calculations

Health center visits: In the 20 IMC-supported health centers in Muyinga there were 185,083 consultations in 2003, of which 169,736 were new cases. For the first quarter of 2004 there were 59,824 consultations of which 53,855 were new cases. Total population of Muyinga province is 573,933, so extrapolating the number of curative new case visits per person per year is 0.32 for 2003 and 0.37 for 2004. For Kirundo in 34 health centers there were 184,491 consultations in 2003, of which 167,518 were new cases. For the first quarter of 2004 there were 45,525 consultations of which 42,432 new cases. Total population of Kirundo province is 582,465, so extrapolating the number of curative new case visits per person per year is 0.29 for 2003 and 0.29 for 2004. For Rutana in 21 health centers there were 180,197 consultations in 2003, of which 166,957 were new cases. For the first quarter of 2004 there were 35,929 consultations of which 43,869 were new cases. Total population of Rutana province is 284,070, so extrapolating the number of curative new case visits per person per year is 0.58 for 2003 and 0.49 for 2004. For Muramvya in 15 health centers there were 31,391 consultations between February 1 and April 30, 2003. Of them 26,734 were new cases. Total population of Muramvya province is 263,288, so extrapolating the number of curative new case visits per person per year is 0.40 for first part of 2003.

Deliveries: We can assume that 4.47% of the total population is pregnant and will deliver. Looking at the numbers of deliveries attended by skilled health workers in the year 2003 and the number of expected deliveries per province per year, we can make the following conclusion for 2003: For Muyinga, pregnancies expected per year  $4.47\% \times 573,933 = 25,653$ . There were 2,403 deliveries in the health facilities, or 9% of all deliveries. For Kirundo, pregnancies expected per year  $4.47\% \times 582,465 = 26,038$ . There were 3,305 deliveries in the health facilities, meaning 12.5%. For Rutana, pregnancies expected per year  $4.47\% \times 284,070 = 12,699$ . There were 1,113 deliveries in health facilities, meaning 9%.

Antenatal clinic attendance: For Muyinga province there were 34,754 prenatal consultations, while there were 25,653 women estimated pregnant. For Kirundo there were 28,528 prenatal consultations, while there were 26,038 women estimated pregnant. For Rutana there were 14,431 prenatal consultations, while there were 12,699 women estimated pregnant.

Vaccination: In the course of 2003, more accurate figures for under 5 years old population were obtained from the Provincial health offices, so that vaccination coverage could be calculated more accurately as well.

Under this activity, IMC provided essential medical supplies and equipment maintenance for health centers and hospitals. IMC supplied medicines for the treatment of beneficiaries in the three TFCs, and the four provinces were supported further as mentioned below.

### Supply to HCs and hospitals

**Rutana:** Throughout 2003, IMC made donations of essential medications, medical supplies and equipment to the BPS who further distributed the items to the health centers and hospital. Medicines included antibiotics, antiparasitics, antipyretic, intravenous solution and malaria drugs. Supplies and equipment included bednets (UNICEF donation), syringes, catheters, tape, sphygmomanometers, nasogastric tubes, gauze, gloves, suture materials, sheets, and mattresses.

**Muyinga/Kirundo:** Throughout 2003, IMC made donations of essential medicines and medical supplies to Muyinga Hospital. The items included needles, quinine and antibiotics. IMC donated antibiotics to Kirundo hospital. IMC made a donation to the BPS of Muyinga and Kirundo of antibiotics, malaria medicines, ORS and medical materials. The BPSs of Muyinga and Kirundo further distributed the items to the health centers.

**Muramvya** (till end of April 2003): IMC donated 84 bottles of chloramphenicol syrup, 144 rolls of cotton, dextrose and aminophylline to the BPS, who further distributed the items to the health centers.

### Immunization coordination with the BPSs:

IMC provided vaccinations through its mobile clinic in Nkoyo (Muyinga province), as well as in the 3 TFCs (Rutana, Muyinga, Kirundo). IMC assisted the BPSs with the transportation and distribution of vaccines to health centers. In Kirundo TFC, IMC conducted a meningitis campaign in March 2003, after a beneficiary was diagnosed with meningitis. In August 2003 a national intensive mother and child vaccination campaign was organized by UNICEF and MOH. IMC provided vehicles and medical staff to assist the local authorities in the provinces where IMC was working. All children under five years old who did not possess a vaccination card were vaccinated against the 6 EPI diseases (measles, polio, diphtheria, whooping cough, tetanus and tuberculosis). Pregnant women (in second and third trimester of pregnancy) were given anti-tetanus and iron folate tablets.

Activity 2b: Deliver basic health care to displaced populations in isolated/insecure sites in Muramvya.

### **Indicators:**

- Number of persons reached by mobile clinics: During the period January-April 2003, there were 12,449 people reached.
- Number of new and old cases treated by mobile clinics: Of the 12,449 mentioned above, 11,828 were new case visits.
- Morbidity statistics from IDP sites and BPS: See Annex 3a.

### Mobile clinics in Bukeye commune (Muramvya province)

In July 2002, IMC started to provide emergency medical services through mobile clinics in six IDP sites in Bukeye commune. This continued till April 2003, the end of the first proposal. In May IMC received the go ahead for a cost-extension, and activities were restarted in Muramvya. As of June 2003, IMC provided emergency medical assistance in two sites only, see under objective 3 below.

**Table III. 3: Sites reached by mobile clinics**

| Sites      | Number of IDPs | Sites/population reached till April 2003 |
|------------|----------------|--|
| Gashishima | 3,045          | Yes                                      |
| Nyambo     | 3,750          | Yes                                      |
| Bukeye     | 1,430          | Yes                                      |
| Kavumu     | 1,895          | Yes                                      |
| Kibogoye   | 1,038          | Yes                                      |

|                  |        |        |
|------------------|--------|--------|
| Rusha            | 915    | Yes    |
| Total population | 12,073 | 12,073 |

Morbidity figures have been collected during the implementation of the mobile clinics. From January 1, 2003 to April 11, 2003, IMC diagnosed total of 12,449 people, of whom 11,828 were new cases. The number one disease was malaria, followed by intestinal parasites. See also Annex 3a sheet 1 and 2. In April 2003, insecurity limited mobile clinic activity.

#### *Malaria mobile clinics in Muramvya province*

In case of epidemics, mobile clinics are a good strategy for early detection and treatment. The provincial medical director informed IMC about a possible malaria epidemic in Rutegama commune on October 25, 2002. IMC analyzed the available HC statistics and took 50 blood samples of people with malaria signs and symptoms in the commune. Based on the results of the samples taken (> 95% positive for malaria) IMC decided to start three mobile clinics in Rutegama commune. Two more mobile clinics were added in Mbuye commune in mid December 2002. The five mobile clinics ran twice per week during the remainder of 2002. IMC continued the malaria mobile clinics during the first four months of 2003. During the month of January, IMC treated 9,339 malaria cases through the mobile clinics, in February there were 6,907 treated, in March 4,745 and in April 3,447 only. In March 2003, IMC took 50 blood samples of people with malaria signs and symptoms in the commune of Rutegama. The results of the samples taken (72% positive for malaria) and the decrease in the number of malaria suspects visiting the mobile clinics, made IMC decide to stop the malaria mobile clinics as of the end of April. The decrease in malaria prevalence between November 2002 and March 2003 could very well be due in part to mobile clinics, the use of coartem and the bednet distribution in Muramvya province. Please see Annex 3.a, sheet 6 for malaria mobile clinic figures and trends.

**Activity 2c:** Mobilize and empower communities to participate in planning and management of public health facilities and address key community health issues.

#### **Indicators:**

- Number of TBAs and CBHWs trained/refreshed: In Muramvya province IMC trained 60 new CBHWs and 28 new TBAs under this grant. For refresher training statistics please see Annex 4.
- Number of TBA kits provided, restocked: TBA kits were replenished as needed during the implementation period of the grant.
- Number of health center committees by province: 5 in Muyinga province, 3 in Rutana province and 3 in Muramvya province (reported on this under objective 3)
- Number of participants at the communal seminars. Please see Annex 4.

#### *TBAs/CBHWs: Muyinga, Kirundo, Rutana for the whole reporting period, Muramvya to April 30, 2003*

During this grant period, IMC trained 60 new CBHWs and 28 new TBAs in Muramvya province. (See tables below and Annex 4, sheet 5) In October 2003, IMC took a census among TBAs and CBHWs to know which of the IMC-trained community health workers were still present and functioning. Refresher courses for all previously IMC trained TBAs and CBHWs took place. Besides this, IMC held information exchange/problem solving meetings during field supervision on a regular basis. Please see Table III.3 and Annex 4 for more details on refresher trainings.

**Muyinga:** For the period of April to December 2003, TBAs assisted 2,051 home deliveries, of which 97.6 percent were successful, and identified 103 high-risk pregnant women who were then referred to the HCs. There were 47 stillbirths/neonatal deaths and 2 maternal deaths. For the first quarter of 2004, the TBAs assisted 701 home deliveries, of which 99.7 percent were successful, and identified 63 high-risk pregnant women and referred them to the HCs. For the first quarter of 2004 there were 2

stillbirths/neonatal deaths and no maternal deaths. TBAs conducted pre-and post-natal consultations, as well as consults for family planning and vaccination. For the period of January to December 2003, CBHWs conducted 2,819 communal sessions and 11,025 home visits in the whole province. For the first quarter of 2004, CBHWs conducted 891 communal sessions and 4,281 home visits.

**Kirundo:** For the period of April to December 2003, TBAs assisted 211 home deliveries, of which 100 percent were successful, and identified 11 high-risk pregnant women and referred them to the HCs. There were no stillbirths/neonatal deaths and no maternal deaths. For the first quarter of 2004, the TBAs assisted 64 home-deliveries, of which 100 percent were successful, and identified 8 high-risk pregnant women and referred them to the HCs. For the first quarter of 2004 there were no stillbirths/neonatal deaths and no maternal deaths. TBAs conducted pre-and post-natal consultations, as well as consults for family planning and vaccination. During the period of January to December 2003, CBHWs conducted 441 communal sessions and 1,954 home visits in the whole province. For the first quarter of 2004, CBHWs conducted 83 communal sessions and 391 home visits.

**Rutana:** For the period of January to December 2003, TBAs assisted 830 home deliveries, of which 91.2 percent were successful, and identified 202 high-risk pregnant women and referred them to the HCs. There were 56 stillbirths/neonatal deaths and 17 maternal deaths. IMC was unable to determine the specific reasons behind the high number of stillbirths and maternal deaths in Rutana during this time period. For the first quarter of 2004, the TBAs assisted 93 home-deliveries, of which 98.9 percent were successful, and identified 32 high-risk pregnant women and referred them to the HCs. For the first quarter of 2004 there was 1 stillbirth/neonatal death and no maternal deaths. TBAs conducted pre-and post-natal consultations, as well as consults for family planning and vaccination. For the period of January to December 2003, CBHWs conducted 36,048 communal sessions and 27,107 home visits in the whole province. For the first quarter of 2004, CBHWs conducted 11,644 communal sessions and 8,648 home visits.

**Muramvya** (For the period January-April 2003): TBAs assisted 648 home deliveries, of which 98.7 percent were successful, and identified 494 high-risk pregnant women and referred them to the HCs. There were 8 stillbirths/neonatal deaths and no maternal deaths. TBAs conducted pre-and post-natal consultations, as well as consults for family planning and vaccination.

**Table III.4: CBHWs and TBAs trained by IMC in Muyinga, Kirundo and Rutana provinces**

| Province | CBHWs Trained by IMC during previous grants | CBHWs functioning As of March 2004 | TBAs Trained by IMC During previous grants | TBAs functioning As of March 2004 |
|----------|---|------------------------------------|--|-----------------------------------|
| Rutana   | 110   | 88                                 | 165  | 128                               |
| Kirundo  | 24  | 24                                 | 22   | 22                                |
| Muyinga  | 122   | 122                                | 193  | 193                               |
| Total    | 256   | 234                                | 380  | 343                               |

**Table III.5: CBHWs trained/upgraded by IMC in Muramvya province (till end April 2003)**

| Muramvya Province | Trained by IMC during previous grants | Trained by IMC during This grant period | Total number trained by IMC |
|-------------------|---------------------------------------|---|-----------------------------|
| CBHWs             | 219                                   | 60                                      | 279                         |
| TBAs              | 300                                   | 28                                      | 328                         |

#### Health Committees: Muyinga, Rutana

IMC had planned to facilitate the establishment of five Health Center Management Committees in Muyinga Province, and three each in Rutana and Muramvya provinces. These committees would provide an active community support base for public health issues. They would help to identify the vulnerable

population groups and seek to provide them with a functional system of free health care. Members would act as facilitators for the local population through the promotion of health education, EPI mobilization and general health center oversight; members would also monitor and supervise community-based health workers.

**Rutana:** Three Health Management Committees have been established as planned. In May 2003 LVIA (partner of European development Fund, FED) started to create Health Committees in 7 HCs. The 7 selected by LVIA are: Butare, Giharo, Gitaba, Gitanga, Mpinga, Muhafu and Shanga. In June 2003 IMC selected three out of the remaining 6 HCs; Bukemba, Kivoga and Ngoma. In July 2003 IMC contacted the chiefs of the 3 selected HCs. Demographic data was gathered and number of members for the committees were established (population figure based).

- Bukemba health committee; Population 5,500; thus 9 members to be selected.
- Kivoga health committee; Population around 7,000; 13 members to be selected
- Ngoma health committee; Population 15,801; 15-20 members to be selected.

In August 2003, IMC held meetings with the communal administrators of the three communes, as well as with staff of the three health centers involved. In September 2003 IMC held meetings with the target population of the three HCs. In total 6 one-day meetings were held, with 614 participants total. In October 2003 IMC held further meetings with the target population of the three HCs. In total 11 one-day meetings were held. During the meetings the health committee members were selected. In total 1395 persons participated in these meetings. The selected committee members are as follows: Bukemba committee (9 members): 4 men, 4 women and the chief of the HC; Kivoga committee (13 members): 6 men, 6 women and the chief of the HC; Ngoma committee (22 members): 10 men, 11 women and the chief of the HC. In November 2003, management committee members were elected. For each of the three committees, three health committee members and three management committee members were elected. In December 2003, the three health committees were trained according the standard module from MOH. The training took four days.

**Muyinga:** Five health center committees have been established as planned. Cumba, Kayenzi, Kinazi and Murama in Muyinga Commune and Nyagatovu in Gashoho commune were selected. In June 2003 IMC and the BPS established health committees in Cumba and Kyenzi, in July the health committees of Kinazi and Murama were established and in August the Nyagatovu health committee was established. In September 2003 IMC and the Provincial Bureau for health performed three training sessions; one session in Cumba, one in Kayenzi and one in Nyagatovu. In October 2003 IMC and the BPS performed two training sessions for members of Kinazi and Murama health committees. The topics discussed included regulations and policies of HC management committees and how HCs are organized and function. In adherence with the protocol, the health committees subdivided themselves into three commissions; one commission for health center management, one commission for prevention and control of epidemics and one for promotion of health. Number of participants was 10 for Kinazi and 12 for Murama. In December 2003 IMC and the BPS performed training sessions for management committees of all five health committees. There were three sessions held (one for Kinazi and Murama together, one for Cumba and Kayenzi together and one for Nyagatovu). The topics discussed included method of drug payments at the health center, basic principles of financial management, organization of health center finances, monitoring and evaluation of the management system and tools available for financial management. Number of participants was 5 for Kinazi, 7 for Cumba, 6 for Kayenzi, 6 for Nyagatovu and 5 for Murama. As of January 2004, the five committees are now well trained, and are encouraged through the supervision of IMC and BPS to participate in planning and management of their health centers.

**Muramvya:** Health committees were only started under the cost extension, and reporting is included under Objective 3.



**Objective 3: Increased access to quality preventive and curative health services in Muramvya Province (from June 2003→ March 2004).**

*Activity 3.1: To improve access to preventive and curative health services through technical and logistic support to public health centers and mobile clinics.*

**Indicators:**

- Monthly vaccination statistics and coverage: Please see Annex 3b
- Monthly morbidity and mortality from BPS: Please see Annex 3b
- Number of trainings/seminars organized for facility based health workers, no of participants, topics covered, pre and posttest results: Please see Annex 4

*Assistance to ten selected HCs (as of June 2003)*

IMC provided training to BPS and health committee members to have better management of the health centers. Please see Annex 4 for more details on conducted trainings. IMC donated medical equipment to the health centers of Gasura, Basangana and Kivoga; the medical equipment consisted of thermometers, sphygmomanometers, stethoscopes, foetoscopes, abcess suture boxes and measuring tape. Joint IMC-BPS supervisions of the health centers were conducted on a regular basis, and IMC also conducted separate supervision visits once per month to each health center. For details on curative consultations and morbidity as well as for vaccination coverage see Annex 3b.

*Provide emergency medical services in IDP commune of Bukeye*

In July 2002, IMC started to provide emergency medical services through mobile clinics in six IDP sites in Bukeye commune. This continued till April 2003, the end of the first proposal. In May IMC received the go ahead for a cost-extension and activities were restarted in Muramvya. As of June 2003, IMC provided emergency medical assistance in two sites only.

**Table III.6: Sites reached by mobile clinics**

| Sites            | Number of IDPs | Sites/population reached till April 2003 | Sites/population reached as of June 2003 |
|------------------|----------------|--|--|
| Gashishima       | 3,045          | Yes                                      | Yes                                      |
| Nyambo           | 3,750          | Yes                                      | Yes                                      |
| Bukeye           | 1,430          | Yes                                      |  |
| Kavumu           | 1,895          | Yes                                      |  |
| Kibogoye         | 1,038          | Yes                                      |  |
| Rusha            | 915            | Yes                                      |  |
| Total population | 12,073         | 12,073                                   | 6,795                                    |

Morbidity figures have been collected during the implementation of the mobile clinics. From January 01, 2003 to April 11, 2003, IMC diagnosed total of 12,449 people, of whom 11,828 were new cases. The number one disease was malaria, followed by intestinal parasites. From June 18, 2003 to December 31, 2003, IMC diagnosed total of 13,049 people, of whom 12,617 were new cases. The number one disease was again malaria, followed by intestinal parasites. From January 01, 2004 to March 31, 2004, IMC diagnosed a total of 5,556 people, of whom 5,453 were new cases. The number one disease during this period was intestinal parasites, followed by upper respiratory tract infections.

*Activity 3.2 Improve community based health services through capacity building and supervision.*

**Indicators:**

- Number of trainings organized for TBAs: 11 sessions were organized. In total 273 TBAs received refresher trainings during the period June 2003 to December 2003. For details on topics and location see Annex 4.
- Number of trainings organized for CBHWs: 6 sessions were organized. In total 142 CBHWs received refresher training during the period June to December 2003. For details on topics, see Annex 4.
- Monthly activity reports from TBAs: The monthly average for TBA reports received was 236 (while there are 328 TBAs trained by IMC = average monthly report submission of 73%).
- Monthly activity reports from CBHWs: The monthly average for CBHWs reports received was 173 (while there are 279 CBHWs trained by IMC = average monthly report submission of 62%).

***TBA and CBHWs training and follow up in Muramvya Province June 2003→ March 2004***

In a previously conducted survey, IMC and UNICEF concluded that the risk of infant as well as maternal mortality when TBAs assist a delivery is reduced by approximately five times (the overall infant mortality in Burundi is about 120/1,000 when delivered without TBA, and about 24/1,000 when assisted by TBA). For the period of June to December 2003, TBAs assisted 1,665 home deliveries in Muramvya Province, of which 99 percent were successful, and identified 888 high-risk pregnant women and referred them to the HCs. For the period January to March 2004, TBAs assisted 683 home deliveries, of which 98 percent were successful, and identified 396 high-risk pregnancies that were referred to HCs. There were in total 1 maternal death and 20 neonatal/stillbirths. TBAs conducted pre-and post-natal consultations, as well as consults for family planning and vaccination.

For the period of June to December 2003, CBHWs conducted 4,825 communal sessions and 13,492 home visits in the whole province. For the first quarter of 2004, CBHWs conducted 2,063 communal sessions and 5,377 home visits.

**Table III.7: TBA assisted deliveries in Muramvya from June 2003 till March 2004**

| <b>Item</b>  | <b>June 2003</b> | <b>July-Sept 2003</b>      | <b>Oct-Dec 2003</b>        | <b>Subtotal June-Dec 2003</b> | <b>Jan-March 2004</b> | <b>Total</b>        |
|--|------------------|----------------------------|----------------------------|-------------------------------|-----------------------|---------------------|
| Number of TBA attended home deliveries                 | 255              | 759                        | 651                        | 1,665                         | 683                   | 2,348               |
| Number of successful deliveries                        | 254              | 756                        | 648                        | 1,658                         | 670                   | 2,328               |
| Number of neonatal deaths/stillbirths                  | 1                | 3                          | 3                          | 7                             | 13                    | 20                  |
| Number of maternal deaths                              | 0                | 0                          | 0                          | 0                             | 1                     | 1                   |
| Risk pregnancies referred to health centers            | 125              | 459                        | 304                        | 888                           | 396                   | 1,284               |
| Pregnant women referred during labor or after delivery | 49               | 151                        | 205                        | 405                           | 320                   | 735                 |
| Number of TBA reports received                         | 151              | Per month 268, 218 and 232 | Per month 244, 250 and 240 | Monthly average 229           | Monthly average 253   | Monthly average 236 |

As per national recommendations, three TBAs are needed per hill, and as there are 100 hills in Muramvya, 300 TBAs are needed. IMC trained to date 328 TBAs. TBAs conduct on average one delivery each month. IMC conducted refresher training for all 328 previously trained TBAs during this implementation period. The follow up contacts with previously trained TBAs and CBHWs were organized on a regular basis on-site. The process of visiting the health posts between refresher courses is not only to review the results of the previous course, but also to choose the topics most needed by the participants for future seminars.

*Activity 3.3: Mobilize and empower communities to participate in planning and management of public health facilities and address key community health issues.*

**Indicators:**

- Number of health committees functioning: 3

*Health Center Committees Muramvya province June 2003 → March 2004*

In June 2003 IMC, in collaboration with the BPS, identified 3 health centers for the establishment of health committees. The health centers chosen were Busangana, Muramvya and Kivoga. During the period July-September 2003, the provincial doctor organized a meeting for the Governor, IMC, the 3 commune administrators, and the 3 chiefs of the health centers. The provincial doctor emphasized during this meeting that cost sharing was an initiative of the MOH for all HCs to adapt and that IMC was there to help and facilitate with trainings. IMC then organized sensitization meetings in the three communes, during which the three communes selected representatives for each hill for the health committees.

- For Busangana, 167 participants selected 18 representatives
- For Kivoga, 200 participants selected 28 representatives
- For Muramvya 77 participants selected 23 representatives.

During the period October-December 2003, it was agreed between IMC and the authorities to have one president, one vice president, one treasurer and one secretary for each health committee. In December, MOH and Ministry of Interior informed the Muramvya authorities officially that there were changes made concerning constituents of health committees for each health center. The new directive was to form, next to the group of four officers as above, another three commissions of three officers each. Training was organized by IMC for 18 persons on management skills in relation to supervising HC activities and materials. In January 2004, IMC in collaboration with BPS conducted three training sessions of three days each for all three COSA offices. Facilitators were IMC's CBHW-coordinator and the BPS authorities, the provincial doctor and health promotion coordinator. The themes of the training were: new directives on HC administration, administrative bodies, primary health care and its components, medicines management, monitoring and micro planning, and work rights.

In February and March the first general meetings were organized by the health committees in the HCs. In Busangana, first general assembly was held on February 9 under the leadership of the chairman of the COSA office. Issues brought up during the meeting included plans and preparation for activities to mobilize the population in the collines and the analysis of needs of COSA. In Kivoga, the first general assembly was held on February 12. Points discussed during this meeting included plans and activities to mobilize the different collines to revoke rumors that the HC has been "privatized", and use of means of communication and gatherings such as church gatherings to inform the population on the COSA. In Muramvya, the first general assembly was held on March 5. Issues brought up in this meeting included 1) plans for the three management committees (health committee, committee for epidemics, and committee for education) 2) issues on indigents and their fees for consultation to be taken up by the community 3) request by the committee members to visit other existing COSA systems, which had been working for years, and 4) request to IMC for training on diseases to be shared to their respective communities. The second general assembly meetings were held in March.

As the members of the committee take up more and more their roles in their respective communities, IMC has began an evaluation of the needs of medicines and materials to be supplied to these health centers, for a certain period of time, in order to jumpstart the autonomy of these health centers to eventually become self reliant themselves. Continued close working collaboration with these health committees is needed to ensure that their infancy stage now will progress to be self-independence and efficiency one day.

### **Local Community Interaction and Capacity Building**

IMC has introduced community-based activities designed to involve the beneficiaries and local authorities to the maximum extent possible. An underlying principle of all of IMC's programs is training and skill transfer, which is designed to leave a long lasting effect. A community approach involving education and training has been included in all components of the Burundi programs since their inception. IMC has focused on local capacity building, and passed on many administrative, financial and programmatic responsibilities to national staff and counterparts as appropriate and possible.

### **Success Stories:**

IMC has treated 25% more malnourished than foreseen. The recovery rate in the TFCs was over 80%. The prenatal consultation rates in all provinces where IMC works are over 1 per pregnant woman. The vaccination coverage is on track. There are eleven health center management committees now functioning.

### **Cost effectiveness:**

With a budget of 1,160,000 USD there were 31,709 malnourished treated, 55,492 patients treated through IMC mobile clinics in Muramvya, 11 health management committees set up, and refresher-training sessions and follow up for 671 TBAs and 513 CBHWs. Overall the target population for this program was 1,616,031. Thus for an amount of less than 1 USD per person, we conducted all above program activities.

## **IV. Conclusion**

IMC has successfully implemented its activities and achieved its overall objectives. IMC attempted to establish a foundation that would be able to create a self-sustaining structure for the TFCs and SFSs. However, this attempt was not successful so far partially due to the continuing economic situation in Burundi as well the fact that the nutritional crisis shifted priorities to immediate relief rather than to the search for sustainable solutions. UNICEF, together with its implementing partners, is searching for solutions that would enable transition of nutritional programs to local health authorities. The transition will probably not be feasible before stable political conditions in the country are guaranteed and food security in the provinces is improved for a long term. IMC recommends that international agencies such as UNICEF, WFP, FAO, WHO and IMC continue to treat the malnourished, inform beneficiaries on the prevention of malnutrition and prepare the community and authorities on responsibility and management. In Burundi the access to primary health care is limited due to insecurity, and the lack of knowledge of medical professionals on cost effective and efficient medical care. TBAs and CBHWs are an important link between the population and the health facilities and play a major role in making the community based health services more accessible and of better quality.